

SWBAT

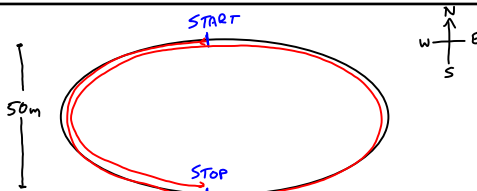
review displacement, distance, speed, velocity, acceleration, and converting

Sep 4-7:31 AM

InterActive Notebook - Table of Contents

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Sep 5-9:09 AM



I go 600 meters around this track. It takes me 3 minutes.

Q1. What is my displacement (3 parts in answer)
 START TO STOP WITH DIRECTION **50 m South**

Q2. What is my average speed
 $\text{SPEED} = \frac{\text{DIST}}{\text{TIME}} = \frac{600\text{m}}{3\text{min}} = 200\text{m/min}$

Q3. What is my distance
 TOTAL GROUND COVERED = **600m**

Q4. What is my average velocity
 $\text{VELOCITY} = \frac{\text{DISPLACEMENT}}{\text{TIME}} = \frac{50\text{m S.}}{3\text{min}} = 16.7\frac{\text{m}}{\text{min}} \text{ S.}$

Q5. If my average speed is 3.33 meters per second, what is my speed in km/hr?
 $3.33\frac{\text{m}}{\text{s}} \times \frac{1\text{km}}{1000\text{m}} \times \frac{60\text{s}}{1\text{min}} \times \frac{60\text{min}}{1\text{hr}} = 11.988\frac{\text{km}}{\text{hr}} \sim 12\frac{\text{km}}{\text{hr}}$


Q6. If I come back tomorrow to the track, what are 2 ways my exercise displacement could be zero?
 - STAND AT START LINE & GO NOWHERE
 - GO ONCE AROUND THE TRACK CLOCKWISE
 - GO AROUND "EXACTLY TWICE" COUNTERCLOCKWISE
 - GO AROUND EXACTLY TWICE, 3x, 4x, ...

Oct 30-7:29 AM

SECA CP Physics
Wednesday 4 November 2015

Welcome!!!

PEDs with Passing



- SchoolView up
- review questions out
- turn in review sheet!

H. Leslie Grebe
Room C-244

Centering
(quotes & puppies)

Opening Activity:
 How could someone get ready for the test tomorrow?
 "Showing up is 80% of life"
 -Woody Allen

- VOCAB FLASHCARDS
- NOTEBOOK
- CLASS WEBSITE
- = SMART BOARD
- = FLIPPING PHYSICS VIDEOS
- = ONLINE TEXTBOOK

SAVE MY GRADE:
 In class review sheet has 17 questions!
 Model your 15 after that!!!

Sep 7-7:04 AM

How we'll play ...

- Find a partner from opposite side of room
- All teams answer ALL the questions on white boards
- No answer = lose points
- Answer with "???" is no risk: won't lose or gain points
- Take turns writing
- Everyone over 10 points at the end gets candy!

Note-taking Strategy:

- 1) Answer question on board FIRST!!!
- 2) Take some notes about the question on your page
- 3) Finish your notes quickly as soon as answer comes up

Nov 15-11:40 AM

Vector or not?

| Quantity | |
|-----------------------|-----|
| a. 5 m | NOT |
| b. 30 m/sec, East | ✓ |
| c. 5 mi., North | ✓ |
| d. 20 degrees Celsius | NOT |
| e. 256 bytes | NOT |
| f. 4000 Calories | NOT |

Quick Quiz Use the diagram to determine the resulting displacement and the distance traveled by the skier during these three minutes. Then click the button to see the answer.

DISTANCE = 420 m
 0-1: 40m + 100m + 40m
 1-2: 40m + 100m
 2-3: 100m

DISPLACEMENT: 140 m D RIGHT

Quick Quiz What is the coach's resulting displacement and distance of travel? Click the button to see the answer.

DISTANCE 95 yd
DISPLACEMENT 55 yd LEFT

Q: While on vacation, Lisa Carr traveled a total distance of 440 miles. Her trip took 8 hours. What was her average speed?

$S = \frac{d}{t} = \frac{440 \text{ mi}}{8 \text{ hr}} = 55 \frac{\text{mi}}{\text{hr}}$

2. What is the distance and the displacement of the race car drivers in the Indy 500?

500 mi **0**

Nov 3-8:59 AM

Ticker tape diagrams are sometimes referred to as oil drop diagrams. Imagine a car with a leaky engine that drips oil at a regular rate. As the car travels through town, it would leave a trace of oil on the street. That trace would reveal information about the motion of the car. Renatta Oyle owns such a car and it leaves a signature of Renatta's motion wherever she goes. Analyze the three traces of Renatta's ventures as shown below. Assume Renatta is traveling from left to right. Describe Renatta's motion characteristics during each section of the diagram. Click the button to check your answers.

1. **CLOSER TOGETHER** \uparrow **SPREADING OUT**
 \downarrow **= SLOWING DOWN** **See Answer** \downarrow **= SPEEDING UP**
STOPPED
2. **EVEN SPACE** \uparrow **SPREADING OUT**
 \downarrow **= CONSTANT SPEED** **See Answer** \downarrow **= SPEEDING UP**
3. **EVEN SPACE** \uparrow **EVEN = CONST. SPEED**
 \downarrow **= CONST. SPEED** **See Answer** \downarrow **SLOWER THAN BEFORE**

Practice B

| Time (s) | Velocity (m/s) |
|----------|----------------|
| 0 | 0 |
| 1 | 4 |
| 2 | 4 |
| 3 | 2 |
| 4 | 0 |

What is the acceleration?

$$a = \frac{\Delta v}{\Delta t} = \frac{(8-0)\text{m/s}}{(1-0)\text{s}} = \frac{(6-4)\text{m/s}}{(2-1)\text{s}} = \frac{(4-2)\text{m/s}}{(3-2)\text{s}} = \frac{(2-0)\text{m/s}}{(4-3)\text{s}} = \frac{2\text{m/s}}{1\text{s}} = 2\text{m/s}^2$$

← SLOPE OF POSITION VS. TIME IS VELOCITY!

Name a time when the person was still

- $t = 0-1\text{s}$
- $t = 7-12\text{s}$
- $t = 16-18\text{s}$

Name 2 times when the person was going opposite directions

PICK 1 BLUE

$t = 5-7\text{s}$ $t = 2-5\text{s}$

$t = 14-16\text{s}$ $t = 12-14\text{s}$

$t = 18-20\text{s}$

Nov 3-9:04 AM

Agreed that we will celebrate if the class average is >60%

Today - In class review

SHOW YOUR WORK!

Nobody's should be identical.

We're all in this together means...

Help others understand (letting them copy, writing identical things doesn't do that)

Due today, 11/3

Nov 2-9:05 AM